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Dated: March 20, 2006

Signature:

Andrea Silverman
(Andrea Silverman)

Docket No.: GFI/107 CIP
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Stephen Hamilton

Application No.: 10/616,082

Confirmation No.: 9644

Filed: July 8, 2003

Art Unit: 1636

For: EXPRESSION OF CLASS 2
MANNOSIDASE AND CLASS III
MANNOSIDASE IN LOWER EUKARYOTIC
CELLS

Examiner: Joiike, Michele K.

INFORMATION DISCLOSURE STATEMENT (IDS)

MS Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08 form. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is filed before the mailing date of a first Office Action on the merits as far as is known to the undersigned (37 CFR 1.97(b)(3)).

Applicant submits that copies of the references cited on the SB/08 form which are marked with a double asterisk (**) next to the Cite No. were previously cited by or submitted to the Patent and Trademark Office in U.S. Application Serial No. 10/371,877 or U.S. Application Serial No. 09/892,591, which are relied upon in this application for an earlier filing date under 35 U.S.C. § 120. In accordance with 37 C.F.R. § 1.98(d), copies of these references are not been submitted herewith. Further, Applicant has not submitted copies of the cited U.S. patents, as the U.S. Patent and Trademark Office has waived this requirement for all published U.S. patent

applications. In accordance with 37 C.F.R. § 1.98(a), a copy of reference CP2 is submitted herewith.

In accordance with 37 C.F.R. § 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 C.F.R. § 1.56(a) exists. In accordance with 37 C.F.R. § 1.97(h), the filing of this Information Disclosure Statement shall not be construed to be an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

It is submitted that this Information Disclosure Statement is in compliance with 37 C.F.R. § 1.98 and the Examiner is respectfully requested to consider the listed references.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 06-1075, under Order No. GFI/107 CIP. A duplicate copy of this paper is enclosed.

Dated: March 20, 2006

Respectfully submitted,

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PTO/SB/08a/b (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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Substitute for form 1449A/B/PTO			Complete If Known		
			Application Number	10/616,082	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)			Filing Date	July 8, 2003	
			First Named Inventor	Stephen Hamilton	
			Art Unit	1636	
			Examiner Name	Not yet assigned	
			Attorney Docket Number	GFI/107 CIP	
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U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
	AA	4,414,329	11-08-1983	Wegner	
	AB	4,617,274	10-14-1986	Wegner	
	AC	4,683,293	07-28-1987	Craig	
	AD	4,775,622	10-04-1988	Hitzeman et al.	
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	AG	4,818,700	04-04-1989	Cregg et al.	
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	AA1	5,602,003	02-11-1997	Pierse et al.	
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	AM1	5,962,294	10-05-1999	Paulson et al.	
	AN1	6,017,743	01-25-2000	Tsuji et al.	
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Examiner Signature		Date Considered	
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Sheet	2	of	12	Attorney Docket Number	GFI/107 CIP

	AQ1	6,300,113	10-09-2001	Landry	
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FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. ¹	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)					
	BA**	EP 0 905 232 A1		03-31-1999	Kirin Beer Kabushiki Kaisha		
	BB**	EP 1 054 062 A1		11-22-2000	Kyowa Hakko Kogyo Co., Ltd.		
	BC**	EP 1 211 310 A		06-05-2002	Kainuma Mam		
	BD**	WO 96/21038 A		07-11-1996	Maras Marleen, et al		
	BE**	WO 98/05768		02-12-1998	The Austin Research Institute		
	BF**	WO 99/31224		06-24-1999	National Research Council of Canada		
	BG**	WO 99/54342		10-28-1999	Umana et al.		
	BH**	WO 01/14522 A1		03-01-2001	Kirin Brewery et al.		
	BI**	WO 01/25406		04-12-2001	University of Victoria Innovation & Development Corp.		
	BJ**	WO 02/00856		01-01-2002	Flanders Interuniversity Institute for Biotechnology		
	BK**	WO 02/00879		01-03-02	Glycofi Inc.		
	BL**	WO 03/031464 A		4-17-2003	Chen XI, et al		
	BM**	WO 04/003194 A		01-08-2004	Flanders Interuniversity Inst		
	BN**	JP 8-336387		12-24-1996	Murakami Koji et al.		

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language translation is attached.

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	CA**	Abeijon et al., "Molecular Cloning of the Golgi apparatus uridine diphosphate-N-acetylglucosamine transporter from <i>Kluyveromyces lactis</i> ," <i>Proc. Natl. Acad. Sci. USA</i> 93:5963-5968 (1996).	
	CB**	Adachi et al., "Mus Musculus Adult Male Testis cDNA, Riken full length enriched library, clone: 4931438M07 product: mannosidase 2, alpha 2, full insert sequence" XP002293645, Database accession no. AK029913 Abstract, Database EMBL, December 21, 2002	

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Sheet	3	of	12	Attorney Docket Number	GFI/107 CIP

	CC**	Alani et al., "A Method for Gene Disruption that Allows Repeated Use of URA3 Selection in the Construction of Multiply Disrupted Yeast Strains," <i>Genetics</i> 116, 541-545, August, 1987.	
	CD**	Altman et al., "Processing of Asparagine-linked Oligosaccharides in Insect Cells: Evidence for Alpha-Mannosidase II," <i>Glycoconj. J</i> 12(2):150-155 (1995).	
	CE**	Altman et al., "Insect cells as hosts for the expression of recombinant glycoproteins," <i>Glycoconj. J.</i> 16(2):109-123 (1999).	
	CF**	Andersen et al., "The Effect of Cell-Culture Conditions on the Oligosaccharide Structures of Secreted Glycoproteins," <i>Curr Opin Biotechnol</i> , 5(5):546-549, October 1994.	
	CG**	Aoki et al., "Expression and activity of chimeric molecules between human UDP-galactose transporter and CMP-sialic acid transporter," <i>J. Biochem.</i> (Tokyo), 126(5):940-50, November, 1999.	
	CH**	Bardor et al., "Analysis of the N-glycosylation of recombinant glycoproteins produced in transgenic plants," <i>Trends in Plant Science</i> 4(9): 376-380 (1999)	
	CI**	Beaudet et al., "High-level expression of mouse Mdr3 P-glycoprotein in yeast <i>Pichia pastoris</i> and characterization of ATPase activity," <i>Methods Enzymol</i> 292: 397-413 (1998)	
	CJ**	Berka et al., "The Filamentous Fungus <i>Aspergillus-Niger</i> Var <i>Awamori</i> as Host for the Expression and Secretion of Fungal and Non-Fungal Heterologous Proteins," <i>Abstr Papers Amer Chem Soc</i> 203: 121-BIOT (1992)	
	CK**	Berninsone et al., "The Golgi Guanosine Diphosphatase is Required For Transport of GDP-Mannose Into the Lumen of <i>Saccharomyces cerevisiae</i> Golgi Vesicles," <i>J. Biol. Chem.</i> , 269(1):207-211, January, 1994.	
	CL**	Berninsone et al., "Regulation of yeast Golgi glycosylation. Guanosine diphosphatase functions as a homodimer in the membrane," <i>J. Biol. Chem</i> 270(24): 14564-14567 (1995).	
	CM**	Berninsone et al., "Functional Expression of the Murine Golgi CMP-Sialic Acid Transporter in <i>Saccharomyces cerevisiae</i> ," <i>J. Biol. Chem.</i> 272(19):12616-12619, May, 1997.	
	CN**	Bianchi et al., "Transformation of the yeast <i>Kluyveromyces lactis</i> by new vectors derived from the 1.6 μ m circular plasmid pKD1," <i>Current Genetics</i> , 12:185-192, 1987.	
	CO**	Boehm et al., "Disruption of the KEX1 Gene in <i>Pichia Pastoris</i> Allows Expression of Full-Length Murine and Human Endostatin," <i>Yeast</i> , 15:563-572 (1999).	

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Sheet	4	of	12	

	CP**	Bonneaud et al., "A family of low and high copy replicative, integrative and single-stranded S. cerevisiae/E. coli shuttle vectors," <i>Yeast</i> 7(6): 609-615 (1991).	
	CQ**	Bretthauer et al., "Glycosylation of Pichia pastoris-derived proteins," <i>Biotechnol Appl Biochem</i> 30(Pt 3): 193-200 (1999).	
	CR**	Bretthauer et al., "Genetic engineering of Pichia pastoris to humanize N-glycosylation of proteins," <i>TRENDS in Biochem</i> , 21(11): 459-462 (2003).	
	CS**	Brockhausen et al., "Control of glycoprotein synthesis. The use of oligosaccharide substrates and HPLC to study the sequential pathway for N-acetylglucosaminyltransferases I, II, III, IV, V and VI in the biosynthesis of highly branched N-glycans by hen oviduct membranes," <i>Biochem. Cell Biol.</i> 66:1134-1151 (1988).	
	CT**	Callewaert et al., "Use of HDEL-Tagged <i>Trichoderma reesei</i> Mannosyl Oligosaccharide 1,2 α -D-Mannosidase for N-glycan Engineering in <i>Pichia pastoris</i> ," <i>FEBS Letters</i> , 503(2-3):173-8, 2001.	
	CU**	Cereghino et al., "Heterologous protein expression in the methylotrophic yeast <i>Pichia pastoris</i> ," <i>FEMS Microbiology Reviews</i> , 24(1): 45-66 (2000).	
	CV**	Cereghino et al., "New selectable marker/auxotrophic host strain combinations for molecular genetic manipulation of <i>Pichia pastoris</i> ," <i>Gene</i> , 263:159-169 (2001).	
	CW**	Chandrasekaran et al., "Purification and Properties of Alpha-D-Mannose:beta-1,2-N-acetylglucosaminyl-transferases and alpha-D-Mannosidases from Human Adenocarcinoma," <i>Cancer Res.</i> , 44(9):4059-68, September, 1984.	
	CX**	Chiba et al., "Production of Human Compatible High Mannose-type (Man ₅ GlcNAc ₂) Sugar Chains in <i>Saccharomyces cerevisiae</i> ," <i>J. Biol. Chem.</i> , 273(41):26298-26304, October, 1998.	
	CY**	Choi et al., "Use of combinatorial genetic libraries to humanize N-linked glycosylation in the yeast <i>Pichia pastoris</i> ," <i>Proc. Natl. Acad. Sci. USA</i> 100(9):5022-5027, April, 2003.	
	CZ**	Chui et al., "Genetic Remodeling of Protein Glycosylation <i>in vivo</i> Induces Autoimmune Disease," <i>Proc. Natl. Acad. Sci., USA</i> 98:1142-1147, January, 2001.	
	CA1**	Chui et al., "Alpha-mannosidase-II Deficiency Results in Dyserythropoiesis and Unveils an Alternate Pathway in Oligosaccharide Biosynthesis," <i>Cell</i> , 1997 July 11; 90(1):157-67.	
	CB1**	Daniel et al., "Mammalian Alpha-Mannosidases—Multiple Forms but a Common Purpose?", <i>Glycobiology</i> , 4, 551-566, October 1994.	

Examiner Signature		Date Considered	
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Sheet	5	of	12	Attorney Docket Number	GFI/107 CIP

	CC1**	Davidson et al., "A PCR-Based Strategy to Generate Integrative Targeting Alleles With Large Regions of Homology," <i>Microbiology</i> , 148 (Pt 8):2607-15).	
	CD1**	Dente, "Human alpha-1-acid glycoprotein genes," <i>Prog. Clin. Biol. Res</i> 300:85-98 (1989).	
	CE1**	Duvet et al., "Cytosolic Deglycosylation Process of Newly Synthesized Glycoproteins Generates Oligomannosides Possessing One GlcNAc Residue at the Reducing End," <i>Biochem J.</i> , 335, 1998, 389-396.	
	CF1**	Eades et al., "Characterization of the Class I alpha-Mannosidase Gene Family in the Filamentous Fungus <i>Aspergillus nidulans</i> ," <i>Gene</i> , 2000, Sept 5; 255(1):25-34.	
	CG1**	Eckhardt et al., "Molecular Cloning of the Hamster CMP-Sialic Acid Transporter," <i>Eur. J. Biochem.</i> , 248(1):187-192 (1997).	
	CH1**	Foster et al., "Cloning and Sequence Analysis of Gm11, a <i>Drosophila melanogaster</i> Homologue of the cDNA Encoding Murine Golgi alpha-Mannosidase II," <i>Gene</i> 154 (1995) 183-186.	
	CI1**	Gleeson, Paul A. "Targeting of Proteins to the Golgi Apparatus," <i>Histochem. Cell Biol.</i> , 109:517-532 (1998).	
	CJ1**	Gonzalez, Daniel S et al: "The Alpha-Mannosidases: Phylogeny and Adaptive Diversification" <i>Molecular Biology and Evolution</i> , vol.17, no.2, February 2000, pages 292-300, XP002293609 ISSN: 0737-4038	
	CK1**	Graham et al., "Compartmental Organization of Golgi-specific Protein Modification and Vacuolar Protein Sorting Events Defined in Yeast <i>sec18</i> (NSF) Mutant," <i>J. Cell. Biol.</i> , 114(2): 207-218 (1991).	
	CL1**	Grard et al., "Oligomannosides or Oligosaccharide-lipids as Potential Substrates for Rat Liver Cytosolic α -D-Mannosidase," <i>Biochem. J.</i> , 316: 787-792 (1996)	
	CM1**	Guillen et al., "Mammalian Golgi apparatus UDP-N-acetylglucosamine transporter: Molecular Cloning by Phenotypic Correction of a Yeast Mutant," <i>Proc. Natl. Acad. Sci. USA</i> , 95(14):7888-7892 (1998).	
	CN1**	Hamilton et al., "Production of Complex Human Glycoproteins in Yeast," <i>Science</i> 301:1244-1246 (2003).	
	CO1**	Harkki et al., "A Novel Fungal Express System - Secretion of Active Calf Chymosin from the Filamentous Fungus <i>Trichoderma reesei</i> ," <i>Bio-Tech</i> 7:596-603 (1989).	
	CP1**	Harris B.R.: "Caenorhabditis elegans Cosmid F58H1" XP002293610, Protein F58H1.1, Abstract, Database EMBL 13 July 1996	

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Sheet	6	of	12	Attorney Docket Number	GFI/107 CIP

	CQ1**	Ichishima et al., "Molecular and Enzymic Properties of Recombinant 1,2- α -Mannosidase from <i>Aspergillus saitoi</i> Overexpressed in <i>Aspergillus oryzae</i> Cells," 1999; <i>Biochem. J.</i> , 339(Pt 3): 589-597.	
	CR1**	Ishida et al., "Molecular Cloning and Functional Expression of the Human Golgi UDP-N-Acetylglucosamine Transporter," <i>J. Biochem.</i> , 126(1):68-77 (1999).	
	CS1**	Jarvis et al., "Isolation and Characterization of a Class II alpha-mannosidase cDNA from Lepidopteran Insect Cells," <i>Glycobiology</i> , 1997; 7(1):113-127 (1997).	
	CT1**	Jarvis et al., "Engineering N-glycosylation pathways in the baculovirus-insect cell system," <i>Curr Opin Biotechnol</i> 9(5): 528-33 (1998).	
	CU1**	Kainuma et al., "Coexpression of α 1,2 galactosyltransferase and UDP-galactose transporter efficiently galatosylates N- and O-glycan in <i>Saccharomyces cerevisiae</i> ," <i>Glycobiology</i> , 9(2): 133-141 (1999).	
	CV1**	Kalsner et al., "Insertion into <i>Aspergillus nidulans</i> of functional UDP-GlcNAc: α 3-D-mannoside β -1,2-N-acetylglucosaminyl-transferase I, the enzyme catalysing the first committed step from oligomannose to hybrid and complex N-glycans," <i>Glycoconj. J.</i> , 12(3):360-370 (1995).	
	CW1**	Kawar et al., "Insect Cells Encode a Class II α -Mannosidase with Unique Properties," <i>J. Biol. Chem.</i> , 276(19):16335-16340 (2001).	
	CX1**	Khatra et al., "Some kinetic properties of human milk galactosyltransferase," <i>Eur. J. Biochem.</i> 44:537-560 (1974).	
	CY1**	Krekdorn et al., "Human β 1,4 galactosyltransferase and α 2,6 sialyltransferase expressed in <i>Saccharomyces cerevisiae</i> are retained as active enzymes in the endoplasmic reticulum," <i>Eur. J. Biochem.</i> , 220(3): 809-17 (1994).	
	CZ1**	Lal et al., "Isolation and Expression of Murine and Rabbit cDNAs Encoding an α 1,2-Mannosidase Involved in the Processing of Asparagine-Linked Oligosaccharides," <i>J. Biol. Chem.</i> , 1994. 269(13): 9872-9881.	
	CA2**	Lal et al. "Substrate Specificities of Recombinant Murine Golgi α 1,2-Mannosidase IA and IB and Comparison with Endoplasmic Reticulum and Golgi Processing α 1,2-Mannosidases," <i>Glycobiology</i> 8(10):981-995, 1998.	
	CB2**	Liao et al., "Cloning, Expression, Purification, and Characterization of the Human Broad Specificity Lysosomal Acid α -Mannosidase," <i>J Biol Chem</i> 271(45): 28348-28358.	
	CC2**	Lehle and Tanner, "Membrane-Bound Mannosyl Transferase in Yeast Glycoprotein Biosynthesis," <i>Biochem. Biophys. Acta</i> , 350(1): 225-235, 1974.	

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Sheet	7	of	12	Attorney Docket Number	GFI/107 CIP

	CD2**	Lu et al., "Cloning and Disruption of the b-Isopropylmalate Dehydrogenase Gene of <i>Pichia Stipitis</i> with URA3 and Recovery of the Double Auxotroph," <i>Appl. Microbiol. Biotechnol.</i> , 49 (2): 141-146 (1998).	
	CE2**	Lussier et al., "The <i>KTR</i> and <i>MNNI</i> mannosyltransferase families of <i>Saccharomyces cerevisiae</i> ," <i>Biochimica et Biophysica Acta</i> 1426: 323-334 (1999).	
	CF2**	Malissard et al., "Expression of functional soluble forms of human beta-1, 4-galactosyltransferase I, alpha-2-6-sialyltransferase, and alpha-1, 3-fucosyltransferase VI in the methylotrophic yeast <i>Pichia pastoris</i> ," <i>Biochem Biophys Res Commun</i> 267(1): 169-173 (2000).	
	CG2**	Maras et al., " <i>In vitro</i> conversion of the carbohydrate moiety of fungal glycoproteins to mammalian-type oligosaccharides," <i>Eur. J. Biochem.</i> , 249: 701-707 (1997).	
	CH2**	Maras et al., "Filamentous fungi as production organisms for glycoproteins of bio-medical interest," <i>Glycoconjugate Journal</i> , 16:99-107 (1999)	
	CI2**	Maras et al., "Molecular Cloning and Enzymatic Characterization of a <i>Trichoderma reesei</i> 1,2-alpha-D-mannosidase," <i>J. Biotechnol.</i> , 77(2-3):255-263, 2000.	
	CJ2**	Martinet et al., "Modification of the protein glycosylation pathway in the methylotrophic yeast <i>Pichia pastoris</i> ," <i>Biotechnology Letters</i> 20(12): 1171-1177 (1998).	
	CK2**	Maruyama et al., "A 1,2-alpha-D-Mannosidase from a <i>Bacillus</i> sp.: Purification, Characterization, and Mode of Action," <i>Carbohydrate Res.</i> 251:89-98 (1994).	
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	CM2**	McGarvey et al., "Expression of the rabies virus glycoprotein in transgenic tomatoes," <i>Bio-Technology</i> 13(13): 1484-1487 (1995).	
	CN2**	Merkle et al., "Cloning, Expression, Purification, and Characterization of the Murine Lysosomal Acid Alpha-Mannosidase," <i>Biochim Biophys Acta</i> , 1336(2): 132-46 (1997).	
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	CQ2**	Moremen, "Golgi α -mannosidase II deficiency in vertebrate systems: implications for asparagine-linked oligosaccharide processing in mammals," <i>Biochimica Biophysica Acta</i> , 1573: 225-235 (2002).	
	CR2**	Moremen et al., "Biosynthesis and Modification of Golgi Mannosidase II in HeLa and 3T3 Cells," <i>J. Biol. Chem.</i> , 260(11): 6654-6662 (1985).	
	CS2**	Moremen et al., "Topology of Mannosidase II in Rat Liver Golgi Membranes and Release of the Catalytic Domain by Selective Proteolysis," <i>J. Biol. Chem.</i> , 261(23): 10945-10951 (1986).	
	CT2**	Moremen, "Isolation of a Rat Liver Golgi Mannosidase II Clone by Mixed Oligonucleotide-Primed Amplification of cDNA," <i>Proc. Natl. Acad. Sci., USA</i> 1989 July;86(14):5276-80.	
	CU2**	Moremen et al., "Isolation, Characterization, and Expression of cDNAs Encoding Murine ∇ -Mannosidase II, a Golgi Enzyme that Controls Conversion of High Mannose to Complex N-Glycans," <i>Journal of Cell Biology</i> , 1991 December; 115(6):1521-34.	
	CV2**	Moremen et al., "Glycosidases of the Asparagine-Linked Oligosaccharide Processing Pathway," <i>Glycobiology</i> 4(2): 113-125 (1994).	
	CW2**	Nakanishi-Shindo et al., "Structure of the N-Linked Oligosaccharides That Show the Complete Loss of α -1,6-Polymannose Outer Chain from <i>och1</i> , <i>och1 mnn1</i> , and <i>och1 mnn1 alg3</i> Mutants in <i>Saccharomyces cerevisiae</i> ," <i>J. Biol. Chem.</i> , 268(35):26338-45 (1993).	
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	CZ2**	Nikawa et al., "Structural and functional conservation of human and yeast HCP1 genes which can suppress the growth defect of the <i>Saccharomyces cerevisiae ire15</i> mutant," <i>Gene</i> 171(1): 107-111 (1996)	
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	CB3**	Oh-eda et al., "Overexpression of the Golgi-Localized Enzyme ∇ -mannosidase IIX in Chinese Hamster ovary Cells Results in the Conversion of Hexamannosyl-N-acetylchitobiose to Tetramannosyl-N-acetylchitobiose in the N-glycan-processing Pathway," <i>Eur. J. Biochem.</i> , 268: 1280-1288 (2001).	

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CE3**	Puglielli et al., "Reconstitution, Identification, and Purification of the Rat Liver Golgi Membrane GDP-fucose Transporter," <i>J. Biol. Chem.</i> 274(50): 35596-35600 (1999).	
CF3**	Rabouille et al., "The <i>Drosophila</i> GMII Gene Encodes Golgi α -mannosidase II," <i>J. Cell Sci.</i> , 1999 October;112(Pt 19): 3319-30.	
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CH3**	Ren et al., "Purification and Properties of a Golgi-Derived (α 1,2)-mannosidase-I from Baculovirus-infected Lepidopteran Insect Cells (IPLB-SF21AE) with Preferential Activity Toward Mannose6-N-Acetylglucosamine2," <i>Biochem.</i> , 34(8): 2489-2495.	
CI3**	Roberts, D.B.: "Drosophila Melanogaster GMII gene, exons 1-5" XP002293614, Database accession no. AJ132715, Abstract, Database EMBL	
CJ3**	Romero et al., "Ktr1P is an ∇ 1,2-mannosyltransferase of <i>Saccharomyces cerevisiae</i> ," <i>Biochem. J.</i> , 321 (Pt 2): 289-295 (1997).	
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CP3**	Schneikert et al., "Characterization of a Novem Mouse Recombinant Processing alpha-mannosidase," <i>Glycobiology</i> , 4(4):445-450 (1994).	

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	CQ3**	Schwientek et al., "Golgi Localization in Yeast is Mediated by the Membrane Anchor Region in Rat Liver Sialyltransferase," <i>J. Biol. Chem.</i> , 270(10):5483-5489 (1995).	
	CR3**	Segawa et al., " <i>Schizosaccharomyces pombe</i> UDP-galactose transporter: identification of its functional form through cDNA cloning and expression in mammalian cells," <i>FEBS Letters</i> , 451(3): 295-298 (1999).	
	CS3**	Shinn et al: "Arabidopsis Thaliana AT5g14950/F2G14_70 mRNA, complete cds." XP002293612, Database accession no. AY052707, Abstract, Database EMBL	
	CT3**	Sikorski et al., "A system of shuttle vectors and yeast host strains designed for efficient manipulation of DNA in <i>Saccharomyces cerevisiae</i> ," <i>Genetics</i> 122(1): 19-27 (1989).	
	CU3**	Soderholm et al. "Vector for pop-in/pop-out Gene Replacement in <i>Pichia pastoris</i> ," <i>Biotchniques</i> , 31 (2):306-10 (2001).	
	CV3**	Sommers et al., "Transport of Sugar Nucleotides into Rat Liver Golgi," <i>J. Cell Biol.</i> , 91(2): A406-A406 (1981).	
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	CX3**	Staub et al., "High-yield production of a human therapeutic protein in tobacco chloroplasts," <i>Nature Biotechnology</i> 18(3): 333-338 (2000).	
	CY3**	Stix, "Supercharging Protein Manufacture," <i>Scientific Amer.</i> , Jan. 2004: 32-33.	
	CZ1**	Svetina et al., "Expression of Catalytic Subunit of Bovine Enterokinase in the Filamentous Fungus <i>Aspergillus Niger</i> ," <i>J. Biotechnol.</i> , 76(2-3): 245-251 (200).	
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	CF4**	Takeuchi, "Trial for molecular breeding of yeast for the production of glycoprotein therapeutics," <i>Trends in Glycoscience and Glycotechnology</i> 9:S29-S35 (1997).	
	CG4**	Umaña et al., "Engineered Glycoforms of an Antineuroblastoma IgG1 with Optimized Antibody-Dependent Cellular Cytotoxic Activity," <i>Nature Biotechnology</i> , 17(1):176-80 (1999).	
	CH4**	Ware et al., "Expression of Human Platelet Glycoprotein Ib-Alpha in Transgenic Mice," <i>Thrombosis and Haemostasis</i> 69(6): 1194-1194 (1993).	

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	CI4**	Weikert et al., "Engineering Chinese Hamster Ovary Cells to Maximize Sialic Acid Content of Recombinant Glycoproteins", <i>Nature Biotechnology</i> , 17(11): 1116-1121, November, 1999.	
	CJ4**	Werner et al., "Appropriate Mammalian Expression Systems for Biopharmaceuticals," <i>Arzneimittelforschung</i> , 1998, Aug;48(8):870-80.	
	CK4**	Wiggins et al., "Activity of the yeast MNN1 alpha-1,3-mannosyltransferase requires a motif conserved in many other families of glycosyltransferases," <i>Proc. Nat. Acad. Sci. USA</i> 95(14): 7945-7950 (1998).	
	CL4**	Yamashita et al., "An α -Mannosidase purified from <i>Aspergillus Saitoi</i> is specific for α 1,2 linkages," <i>Biochemical and Biophysical Research Communications</i> 96(3): 1335-1342.	
	CM4**	Yang et al., "Glycosylation and proteolytic processing of 70 kDa C-terminal recombinant polypeptides of <i>Plasmodium falciparum</i> merozoite surface protein 1 expressed in mammalian cells," <i>Glycobiology</i> , 9(12): (1999) 1347-55.	
	CN4**	Yang et al., "Effects of Ammonia on CHO Cell Growth, Erythropoietin Production, and Glycosylation", <i>Biotechnol Bioeng.</i> , 68(4): 370-80 (2000).	
	CO4**	Yip et al., "Cloning and analysis of the <i>Saccharomyces cerevisiae</i> MNN9 and MNN1 genes required for complex glycosylation of secreted proteins," <i>Proc. Natl. Acad. Sci. USA</i> , 91(7): 2723-2727 (1994).	
	CP4**	Yoko-o et al., " <i>Schizosaccharomyces Pombe Och1(+)</i> Encodes Alpha-1,6-Mannosyltransferase that is involved in Outer Chain Elongation of N-Linked Oligosaccharides," <i>FEBS Lett.</i> , 489(1): 75-80 (2001).	
	CQ4**	Yoshida et al., "1-2-alpha-D- mannosidase from <i>Penicillium citrinum</i> : molecular and enzymic properties of two isoenzymes," <i>Biochem. J.</i> 290 (Pt2): 349-354 (1993).	
	CR4**	Yoshida et al., "Expression and characterization of rat UDP-N-acetylglucosamine: α -3-D-mannoside β -1,2-N-acetylglucosaminyltransferase I in <i>Saccharomyces cerevisiae</i> ," <i>Glycobiology</i> , 9 (1): 53-58 (1999).	
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	CW4**	Genbank Accession No. NM_073594	
	CX4**	Genbank Accession No. NM_121499	
	CY4**	Genbank Accession No. U31520	
	CZ4**	Genbank Accession No. X77652	
	CA5**	Genbank Accession No. XM_218816	
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	CB5**	Genbank Accession No. NM 002406	
	CC5**	Genbank Accession No. CAA98114	
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	CE5**	Genbank Accession No. NM006715	
	CF5**	Genbank Accession No. X77652	
	CG5**	Genbank Accession No. X61172	
	CH5**	Genbank Accession No. NM_000528	

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